

## Release Notes

### LaGriT version 1.1, Winter 2002

A summary of the major changes found in this release are listed below. A complete list of changes is included at the end of this document. Refer to the user's manual for a complete description of the new, enhanced and revised commands.

#### New Commands:

**create\_graph**

**create\_graph/metis/node[dual/v1/v2/create/delete]**

Create a node or dual (element) adjacency graph. If node option is selected, the graph of node adjacency is created, if dual option is selected, the graph of element adjacency (dual graph) is created -- see manual for details

**metis**

Interface METIS graph partition and reorder package with LaGriT.

For details of METIS algorithms see:

<http://www-users.cs.umn.edu/~karypis/metis>

The standard libraries, liblagrit.a and libutil.a do not contain METIS. In order to utilize the METIS functions, one must download the METIS package, build the METIS libraries on your local system and link them with the LaGriT libraries.

For example: f90 -o xlagrit driver.f liblagrit.a libmetis.a libutil.a

#### Enhanced Commands:

**math**

**math/abs** add absolute value option, also allow for more combinations of operand types.

**createpts**

**createpts/median** creates new mesh object attributes called xmed,ymed and zmed of length nelements and rank scalar. They contain the x,y,z coordinates of the median point of each element in the mesh. All element types are supported

**reorder**

reorder elements in addition to nodes

**sort**

sort elements in addition to nodes

Bugs:

05/22/02	pset_nosb	fix problem with geom./xyz
05/15/02	writedump	fix problem with delatt/keepatt and dump/zone
05/15/02	read_geometries	fix problem if number of surfaces is zero
06/04/02	rotatept	fix typo
11/01/02	surfpts	fix problems with 'surface' option
11/04/02	cmo_delatt	fix error in retrieving cmo name
11/20/02	mega3d	skip calls involving hessian for smooth/position/geometry option

Code Changes:

No code changes